ICE versus HEAT

Maybe you have twisted your ankle, bent over the wrong way, or your knees are "flared up" once again.

Should you use ice or turn to heat to find relief?

Look no further... your answer is here!

RehabWorks

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HEAT

Although heat may feel the best on most injuries, it is often not the best choice. Heat should be applied to a chronic injury, or one that has been bothersome for 3 weeks or more. Typically, heat is contraindicated if pain or inflammation is less than 72 hours to 1 week old. Heat may also be used to relax a stubborn muscle spasm that has lasted more than 3 days.

Physiological Effects of Heat

- Vasodilation (increased blood flow)
- Increased Cell Metabolism
- Increased Collagen Elasticity
- Decreased Muscle Spasm
- Increased Capillary Permeability
- Decreased Pain
- Sedation & Relaxation!!

When should I use Heat?

Indications for use of heat

1. Subacute Injury (at least 72 hours old)
2. Chronic Pain and Inflammatory Conditions (tendinitis, arthritis, bursitis)
3. Muscle Spasm Lasting Greater Than 3 days
4. Decreased range of motion (ROM) and/or joint contracture

How do I apply Heat?

1. Use a heating pad that may be moistened, or heat a commercial hot pack as recommended by the manufacturer.
2. Drape the treatment area with another towel prior to application, as well as dress any open wounds on or near the treatment area.
3. Remove all jewelry over the treatment area and place the hot pack over area.
4. Place an additional towel on top of the hot pack.
5. Treatment time should be 15-20 minutes.

NOTE: HEAT SHOULD NOT BE USED OVER WOUNDS ONLY.

PRECAUTIONS:

- DO NOT USE HEAT IF INJURY IS LESS THAN 72HRS OLD OR SWELLING IS PRESENT!!!
- Impaired circulation and/or sensory ability is a contraindication (harmful) for heat
- Do not use if you have impaired thermal regulation (ability to control body's adaptation to heat); Do extreme temperature changes cause you severe pain?

ICE

Ice is best used immediately after an injury in which swelling and pain may limit motion. Ice alone will not rid the area of swelling once it has occurred, but ice will prevent further swelling from accumulating. Ice will "deaden pain" by

decreasing nerve conduction velocity, which in effect limits the amount of pain we feel after an injury. Ice can be used in the case of a muscle spasm in order to decrease blood flow and sensation to the area.

Physiological Effects of Ice

- Vasoconstriction (decreased blood flow)
- Decreased Cell Metabolism (prevents further cell damage & tissue death)
- Reduces Accumulation of Cellular Waste
- Decreases Pain
- Decreases Collagen Elasticity
- Decreases Capillary Permeability
- Decreases Muscle Spasm
- Prevents Additional Swelling From Forming

When should I use ice?

Indications for the use of Ice

1. Acute injury (first 72hrs to 1 week, or until swelling subsides)
2. Acute or chronic pain
3. Post-surgical pain & swelling
4. Muscle spasm
5. After activities that may cause pain or after rehabilitation exercises

How do I apply Ice?

1. Fill a plastic bag with ice or place ice into a wet towel. If you have never experienced an adverse reaction to ice treatments, place the ice bag directly over your skin for best results. Otherwise, maintain a barrier between your skin and ice source using a wet towel.
2. Cover any open wounds with appropriate dressing prior to application.
3. Place over the area and apply compression using a wrap, additional towel, or clear plastic wrap.
4. Elevate limb comfortably above the heart.
5. Ice treatment should last between 15 and 20 minutes. Ice once every hour until pain and swelling has subsided.
6. Wait at least one hour between ice sessions.
7. Continue to ice until pain and swelling are gone.

PRECAUTIONS:

- DO NOT SLEEP WHILE ICE IS APPLIED!!!
- For cold allergy or hypersensitivity to cold, place a barrier between your skin and the ice source.
- Raynaud's phenomenon
- Hypertension and coronary artery disease
- Sensitive areas like the neck, behind the knee, the wrists and inside of the elbow all possess nerves that are near the surface of the skin...monitor these areas closely!! If numbness and tingling persist one hour after ice treatment seek medical attention immediately.

NOTE: AS WITH ANY INJURY, IT IS BEST TO SEEK THE ADVICE OF A DOCTOR AS SOON AS POSSIBLE AFTER THE INCIDENT. THESE GUIDELINES ARE PROVIDED WITH THE INTENT TO ADVISE PATIENTS OF PROPER SELF CARE WHILE OUT OF DOCTOR SUPERVISION.

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